

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A base station apparatus in a mobile communication system supporting packet data transmission, comprising:

a controller for generating a data rate request (DRQ) message for requesting transmission of a ~~data rate~~DRQ information to a mobile station, when there is a packet to transmit in a state where there is no data communication ~~between the base station and~~with the mobile station; and

a channel transmitter for transmitting the ~~data rate request~~DRQ message generated from the controller to the mobile station,

wherein the DRQ information indicates a forward data rate desired in the mobile station.

2. (Currently Amended) The base station apparatus as claimed in claim 1, wherein the ~~data rate request~~DRQ message is comprised of a prescribed number of identical power control bits.

3. (Original) The base station apparatus as claimed in claim 1, wherein the channel transmitter includes a shared power control channel (SPCCH) transmitter for transmitting a power control bit for controlling transmission power of the mobile station.

4. (Currently Amended) The base station apparatus as claimed in claim 1, wherein the controller provides the channel transmitter with an ACK (Acknowledgment) message in response to a detection ACK signal of the ~~data rate request~~DRQ message from the mobile station.

5. (Original) The base station apparatus as claimed in claim 4, wherein the ACK message is comprised of a prescribed number of identical power control bits.

6. (Original) The base station apparatus as claimed in claim 4, wherein the controller provides the channel transmitter with a power control bit for controlling transmission power of the mobile station, after transmitting the ACK message.

7. (Currently Amended) A mobile station apparatus in a mobile communication system supporting packet data transmission, comprising:

a gating signal generator for generating a gating signal for gating on/off a ~~reverse signal~~data rate request (DRQ) information transmitted to a base station after completion of packet data communication, and generating a gating signal for immediately resuming transmission of the ~~reverse signal~~DRQ information upon receipt of a ~~data rate request~~DRQ message for requesting transmission of a ~~data rate~~the DRQ information from the base station ~~when in a state where there is no data communication between with the base station and the mobile station;~~

a controller for gating on/off the ~~reverse signal~~DRQ information according to the gating signal from the gating signal generator; and

a transmitter for gating transmission of the ~~reverse signal~~DRQ information transmitted to the base station according to ~~the~~a control signal from the controller,

wherein the DRQ information indicates a forward data rate desired in a corresponding mobile station.

8. (Currently Amended) The mobile station apparatus as claimed in claim 7, wherein the controller provides the transmitter with a power control signal for the ~~reverse signal~~DRQ information so as to increase transmission power of the ~~reverse signal~~DRQ information little by little from predetermined initial access power, upon ~~resumption~~resuming transmission of the ~~reverse signal~~DRQ information.

9. (Currently Amended) The mobile station apparatus as claimed in claim 7, wherein the controller provides the transmitter with a power control signal for the ~~reverse signal~~DRQ information so as to control transmission power of the ~~reverse signal~~DRQ information according to a power control bit received from the base station, after receipt of an ACK message responsive to transmission of the ~~reverse signal~~DRQ information.

10. (Currently Amended) The mobile station apparatus as claimed in claim 7, wherein the ~~data rate request~~DRQ message is comprised of a prescribed number of identical power control bits.

11. (Original) The mobile station apparatus as claimed in claim 9, wherein the ACK message is comprised of a prescribed number of identical power control bits.

12. (Currently Amended) The mobile station apparatus as claimed in claim 11, wherein the ~~data rate request~~DRQ message and the ACK message are received over a forward shared power control channel (SPCCH).

13. (Currently Amended) A packet data transmission method of a base station in a state where there is no data communication between the base station and a mobile station, comprising the steps of:

transmitting a data rate request (DRQ) message to the mobile station to transmit the packet data ;

transmitting an ACK (ACKnowledgement) message to the mobile station for a prescribed time period in response to a detection ACK signal of the ~~data rate request~~DRQ message from the mobile station; and

transmitting the packet data along with a power control signal after transmitting the ACK message.

14. (Currently Amended) The packet data transmission method as claimed in claim 13, further comprising the step of dropping the packet data to be transmitted, upon failure to receive a detection ACK signal of the ~~data rate request~~DRQ message from the mobile station.

15. (Currently Amended) The packet data transmission method as claimed in claim 13, further comprising the steps of:

retransmitting the ~~data-rate-request~~DRQ message after suspending transmission of the ~~data-rate-request~~DRQ message for a prescribed time, upon failure to receive a detection ACK signal of the ~~data-rate-request~~DRQ message from the mobile station; and

dropping the packet data to be transmitted, in case of failing to receive the detection ACK signal, until a number of transmissions of the ~~data-rate-request~~DRQ message reaches a prescribed number.

16. (Currently Amended) The packet data transmission method as claimed in claim 13, wherein the ~~data-rate-request~~DRQ message is comprised of a prescribed number of identical power control bits.

17. (Original) The packet data transmission method as claimed in claim 13, wherein the ACK message is comprised of a prescribed number of identical power control bits.

18. (Currently Amended) A packet data transmission method of a mobile station in a mobile communication system supporting packet data transmission, comprising the steps of:
gating on/off a ~~reverse-signal~~data rate request (DRQ) information transmitted to a base station, after completion of packet data communication; and

resuming ~~the reverse transmission of the DRQ information~~, upon receipt of a ~~data-rate request~~DRQ message for requesting transmission of a ~~data-rate~~the DRQ information from the base station ~~when~~in a state where there is no data communication between the base station and the mobile station .

19. (Original) The packet data transmission method as claimed in claim 18, wherein upon resumption of the reverse transmission, transmission power of the reverse signal is increased little by little from predetermined initial access power for a prescribed time.

20. (Currently Amended) The packet data transmission method as claimed in claim 18, further comprising the step of controlling transmission power of the ~~reverse-signal~~DRQ

information according to a power control bit received from the base station, upon receipt of an ACK message responding to the reverse transmission from the base station.

21. (Currently Amended) The packet data transmission method as claimed in claim 18, further comprising the steps of:

retransmitting the ~~reverse signal~~DRQ information performed for the prescribed time, upon failure to receive an ACK message responding to transmission of the ~~reverse signal~~DRQ information, from the base station; and

dropping packet communication upon failure to receive the ACK message until a number of transmitting the ~~reverse signal~~DRQ information reaches a prescribed number.

22. (Currently Amended) The packet data transmission method as claimed in claim 18, further comprising the steps of:

retransmitting the ~~reverse signal~~DRQ information performed for the prescribed time, in case of failing to receive an ACK message responding to transmission of the ~~reverse signal~~DRQ information, from the base station;

suspending the transmission of the reverse signal for a prescribed time, resuming the reverse transmission and then determining whether the ACK message is received, if the number of transmitting the ~~reverse signal~~DRQ information reaches a prescribed number; and

dropping packet communication, upon failure to receive the ACK message, until a number of the suspensions reaches the prescribed number.

23. (Currently Amended) The packet data transmission method as claimed in claim 18, wherein the ~~data rate request~~DRQ message is comprised of a prescribed number of identical power control bits.

24. (Original) The packet data transmission method as claimed in claim 20, wherein the ACK message is comprised of a prescribed number of identical power control bits.